



[4910-13-P]

**DEPARTMENT OF TRANSPORTATION**

**Federal Aviation Administration**

**14 CFR Part 39**

**[Docket No. FAA-2013-1056; Directorate Identifier 2013-CE-046-AD; Amendment 39-17849; AD 2014-10-02 ]**

**RIN 2120-AA64**

**Airworthiness Directives; Dornier Luftfahrt GmbH Airplanes**

**AGENCY:** Federal Aviation Administration (FAA), Department of Transportation (DOT).

**ACTION:** Final rule.

**SUMMARY:** We are superseding airworthiness directive (AD) 2006-11-19 for Dornier Luftfahrt GmbH Model Dornier 228-100, 228-101, 228-200, 228-201, 228-202, and 228-212 airplanes. This AD results from mandatory continuing airworthiness information (MCAI) issued by an aviation authority of another country to identify and correct an unsafe condition on an aviation product. The MCAI describes the unsafe condition as chafed or damaged wiring on the flight deck overhead panels (5VE and 6VE). We are issuing this AD to require actions to address the unsafe condition on these products.

**DATES:** This AD is effective [INSERT DATE 35 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

The Director of the Federal Register approved the incorporation by reference of certain publications listed in the AD as of [INSERT DATE 35 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

**ADDRESSES:** You may examine the AD docket on the Internet at <http://www.regulations.gov> by searching for and locating Docket No. FAA-2013-1056; or in person at the Docket Management Facility, U.S. Department of Transportation,

Docket Operations, M-30, West Building Ground Floor, Room W12-140, 1200 New Jersey Avenue, SE., Washington, DC 20590.

For service information identified in this AD, contact RUAG Aerospace Services GmbH, Dornier 228 Customer Support, P.O. Box 1253, 82231 Wessling, Germany; telephone: +49 (0) 8153-30 2220; fax: +49 (0) 8153-30 4258; email: [custsupport.dornier228@ruag.com](mailto:custsupport.dornier228@ruag.com); Internet:

[http://www.ruag.com/en/Aviation/Aviation\\_Home](http://www.ruag.com/en/Aviation/Aviation_Home). You may view this referenced service information at the FAA, Small Airplane Directorate, 901 Locust, Kansas City, Missouri 64106. For information on the availability of this material at the FAA, call (816) 329-4148.

**FOR FURTHER INFORMATION CONTACT:** Karl Schletzbaum, Aerospace Engineer, FAA, Small Airplane Directorate, 901 Locust, Room 301, Kansas City, Missouri 64106; telephone: (816) 329-4146; fax: (816) 329-4090; email: [karl.schletzbaum@faa.gov](mailto:karl.schletzbaum@faa.gov).

## **SUPPLEMENTARY INFORMATION:**

### **Discussion**

We issued a notice of proposed rulemaking (NPRM) to amend 14 CFR part 39 to add an AD that would apply to Dornier Luftfahrt GmbH Model DORNIER LUFTFAHRT GmbH Models Dornier 228-100, 228-101, 228-200, 228-201, 228-202, and 228-212 airplanes. The NPRM was published in the *Federal Register* on December 23, 2013 (78 FR 77380), and proposed to supersede AD 2006-11-19, Amendment 39-14624 (71 FR 32268; June 5, 2006).

Since we issued AD 2006-11-19, Amendment 39-14624 (71 FR 32268; June 5, 2006), DORNIER LUFTFAHRT GmbH changed the compliance time between repetitive inspections and incorporated those inspections into the Time Limits/Maintenance Checks Manual (TLMCM).

The NPRM proposed to correct an unsafe condition for the specified products and was based on mandatory continuing airworthiness information (MCAI) originated by an aviation authority of another country. The MCAI states that:

RUAG Aerospace Services GmbH issued Time Limits / Maintenance Checks Manual (TLMCM) TM-TLMCM-090305-ALL, Revision 5 dated 20 March 2011 respectively TM-TLMCM-228-00002-150610, Revision 1 dated 03 March 2011, listing component life limits and describing maintenance instructions for the Dornier 228 type design. The Document TM-TLMCM-228-00002-150610 is valid for airplane SN 8300 and up and other airplane SN modified according to CN-228-247. The instructions contained in that manual have been identified as mandatory actions for continued airworthiness.

In 2005, chafed wiring was found on 5VE Panel due to lost adhesive of the TY-RAP holder and subsequent vibration of the cable harness.

To address this potential unsafe condition, RUAG issued All Operators Telefax (AOT) No. AOT-228-24-028 and Temporary Revision (TR) 05-05 of the TLMCM introducing repetitive of the cockpit overhead panels 5VE and 6VE and, depending on findings, corrective actions(s). Subsequently, LBA issued AD D-2005-438 (EASA approval 2005-6430) to require those actions.

Since that AD was issued, the instructions of TR 05-05 have been incorporated into TM-TLMCM-090305-ALL, Revision 5 dated 20 March 2011 respectively into TM-TLMCM-228-00002-150610, Revision 1 dated 03 March 2011.

For the reasons described above, this AD retains the requirements of EASA AD D-2005-438, which is superseded, and requires the implementation of the life limits and maintenance actions as specified in the TLMCM (TM-TLMCM-090305-ALL respectively TM-TLMCM-228-00002-150610) for zone 321 overhead panels 5VE/6VE.

The MCAI can be found in the AD docket on the Internet at:

<http://www.regulations.gov/#!documentDetail;D=FAA-2013-1056-0002>.

After the NPRM was issued, we identified that we inadvertently omitted the calendar time compliance for the inspections of the wiring in the flight deck overhead panels. We issued a supplemental notice of proposed rulemaking (SNPRM) to propose

adding the calendar time compliance for the inspections of the wiring in the flight deck overhead panels. The SNPRM was published in the *Federal Register* on March 4, 2014 (79 FR 12131).

### **Comments**

We gave the public the opportunity to participate in developing this AD. We received no comments on the SNPRM (79 FR 12131, March 4, 2014) or on the determination of the cost to the public.

### **Conclusion**

We reviewed the relevant data and determined that air safety and the public interest require adopting the AD as proposed except for minor editorial changes. We have determined that these minor changes:

- Are consistent with the intent that was proposed in the SNPRM (79 FR 12131, March 4, 2014) for correcting the unsafe condition; and
- Do not add any additional burden upon the public than was already proposed in the SNPRM (79 FR 12131, March 4, 2014).

### **Costs of Compliance**

We estimate that this AD will affect 17 products of U.S. registry. We also estimate that it will take about 2 work-hours per product to comply with the basic requirements of this AD. The average labor rate is \$85 per work-hour.

Based on these figures, we estimate the cost of the proposed AD on U.S. operators to be \$2,890 or \$170 per product.

In addition, we estimate that any necessary follow-on actions would take about 3 work-hours and require parts costing \$1,000, for a cost of \$1,255 per product. We have no way of determining the number of products that may need these actions.

### **Authority for This Rulemaking**

Title 49 of the United States Code specifies the FAA's authority to issue rules on aviation safety. Subtitle I, section 106, describes the authority of the FAA Administrator. "Subtitle VII: Aviation Programs," describes in more detail the scope of the Agency's authority.

We are issuing this rulemaking under the authority described in "Subtitle VII, Part A, Subpart III, Section 44701: General requirements." Under that section, Congress charges the FAA with promoting safe flight of civil aircraft in air commerce by prescribing regulations for practices, methods, and procedures the Administrator finds necessary for safety in air commerce. This regulation is within the scope of that authority because it addresses an unsafe condition that is likely to exist or develop on products identified in this rulemaking action.

### **Regulatory Findings**

We determined that this AD will not have federalism implications under Executive Order 13132. This AD will not have a substantial direct effect on the States, on the relationship between the national government and the States, or on the distribution of power and responsibilities among the various levels of government.

For the reasons discussed above, I certify this AD:

- (1) Is not a "significant regulatory action" under Executive Order 12866,
- (2) Is not a "significant rule" under the DOT Regulatory Policies and Procedures (44 FR 11034, February 26, 1979),
- (3) Will not affect intrastate aviation in Alaska, and
- (4) Will not have a significant economic impact, positive or negative, on a substantial number of small entities under the criteria of the Regulatory Flexibility Act.

## **Examining the AD Docket**

You may examine the AD docket on the Internet at <http://www.regulations.gov> by searching for and locating Docket No. FAA-2013-1056; or in person at the Docket Management Facility between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays. The AD docket contains the NPRM/SNPRM, the regulatory evaluation, any comments received, and other information. The street address for the Docket Office (telephone (800) 647-5527) is in the ADDRESSES section. Comments will be available in the AD docket shortly after receipt.

## **List of Subjects in 14 CFR Part 39**

Air transportation, Aircraft, Aviation safety, Incorporation by reference, Safety.

## **Adoption of the Amendment**

Accordingly, under the authority delegated to me by the Administrator, the FAA amends 14 CFR part 39 as follows:

### **PART 39 - AIRWORTHINESS DIRECTIVES**

1. The authority citation for part 39 continues to read as follows:

Authority: 49 U.S.C. 106(g), 40113, 44701.

#### **§ 39.13 [Amended]**

2. The FAA amends § 39.13 by removing Amendment 39-14624 (71 FR 32268; June 5, 2006) and adding the following new AD:

2014-10-02 **Dornier Luftfahrt GmbH:** Amendment 39-17849; Docket No. FAA-2013-1056; Directorate Identifier 2013-CE-046-AD.

#### **(a) Effective Date**

This airworthiness directive (AD) becomes effective [INSERT DATE 35 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

#### **(b) Affected ADs**

This AD supersedes AD 2006-11-19, Amendment 39-14624 (71 FR 32268; June 5, 2006).

**(c) Applicability**

This AD applies to Dornier Luftfahrt GmbH Dornier Models 228-100, 228-101, 228-200, 228-201, 228-202, and 228-212 airplanes, all serial numbers, certificated in any category.

**(d) Subject**

Air Transport Association of America (ATA) Code 5: Time Limits.

**(e) Reason**

This AD was prompted by mandatory continuing airworthiness information (MCAI) originated by an aviation authority of another country to identify and correct an unsafe condition on an aviation product. The MCAI describes the unsafe condition as chafed or damaged wiring on the flight deck overhead panels (5VE and 6VE). We are issuing this AD to prevent chafing and damage to the wiring in the flight deck overhead panels, which could result in short-circuiting of related wiring and possibly lead to electrical failure of affected systems and potential fire in the flight deck.

**(f) Actions and Compliance**

Unless already done, do the following actions in paragraphs (f)(1) through (f)(3) of this AD:

(1) Within the next 600 hours time-in-service (TIS) after [INSERT DATE 35 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER] (the effective date of this AD) or within the next 12 months after [INSERT DATE 35 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER] (the effective date of this AD), whichever occurs first, and repetitively thereafter at intervals not to exceed 600 hours TIS or 12 months, whichever occurs first, inspect the wiring in the flight deck overhead panels, 5VE and 6VE, for chafing, damage, and/or incorrect installation (wire tie attachment holders). For the inspection, refer to:

(i) Zone 321 on page 5, dated May 1, 2006, in section 05-22-10, Zonal Inspection Program, in Chapter 05, Time Limits/Maintenance Checks—General, in RUAG

Aerospace Services GmbH Dornier 228 Time Limits/Maintenance Checks Manual (TLMCM), TM-TLMCM-090305-ALL, Revision 5, March 20, 2011;

(ii) Zone 321 on page 5, dated May 1, 2006, in section 05-26-10, Low Utilization Zonal Inspection Program, in Chapter 05, Time Limits/Maintenance Checks—General, in RUAG Aerospace Services GmbH Dornier 228 Time Limits/Maintenance Checks Manual (TLMCM), TM-TLMCM-090305-ALL, Revision 5, March 20, 2011;

(iii) Pages 1 through 10, Overhead Panel 5VE—Description, dated November 25, 2009, in subject 31-10-07, of Chapter 31, Indicating/Recording Systems, in RUAG Aerospace Services GmbH Dornier 228 Airplane Maintenance Manual, TM-AMM-228-00014-080184, Revision 3, October 30, 2012;

(iv) Pages 201 through 208, Overhead Panel 5VE—Maintenance Practices, dated November 25, 2009, in subject 31-10-07, of Chapter 31, Indicating/Recording Systems, in RUAG Aerospace Services GmbH Dornier 228 Airplane Maintenance Manual, TM-AMM-228-00014-080184, Revision 3, October 30, 2012;

(v) Pages 1 and 2, Overhead Panel 6VE—Description, in subject 31-10-08, dated November 25, 2009, of Chapter 31, Indicating/Recording Systems, in RUAG Aerospace Services GmbH Dornier 228 Airplane Maintenance Manual, TM-AMM-228-00014-080184, Revision 3, October 30, 2012;

(vi) Pages 201 through 204, Overhead Panel 6VE—Maintenance Practices, in subject 31-10-08, dated November 25, 2009, of Chapter 31, Indicating/Recording Systems, in RUAG Aerospace Services GmbH Dornier 228 Airplane Maintenance Manual, TM-AMM-228-00014-080184, Revision 3, October 30, 2012.

(2) If any chafed or damaged wires are found during any inspection required in paragraph (f)(1) of this AD, before further flight, repair the affected wire(s) and assure correct installation of the wiring in the flight deck overhead panels by reattaching or replacing the wire tie attachment holders and securing any loose wires to the wire tie attachment holders with plastic wire ties following:



(i) Pages 1 through 10, Overhead Panel 5VE—Description, dated November 25, 2009, in subject 31-10-07, of Chapter 31, Indicating/Recording Systems, in RUAG Aerospace Services GmbH Dornier 228 Airplane Maintenance Manual, TM-AMM-228-00014-080184, Revision 3, October 30, 2012;

(ii) Pages 201 through 208, Overhead Panel 5VE—Maintenance Practices, dated November 25, 2009, in subject 31-10-07, of Chapter 31, Indicating/Recording Systems, in RUAG Aerospace Services GmbH Dornier 228 Airplane Maintenance Manual, TM-AMM-228-00014-080184, Revision 3, October 30, 2012;

(iii) Pages 1 and 2, Overhead Panel 6VE—Description, in subject 31-10-08, dated November 25, 2009, of Chapter 31, Indicating/Recording Systems, in RUAG Aerospace Services GmbH Dornier 228 Airplane Maintenance Manual, TM-AMM-228-00014-080184, Revision 3, October 30, 2012;

(iv) Pages 201 through 204, Overhead Panel 6VE—Maintenance Practices, in subject 31-10-08, dated November 25, 2009, of Chapter 31, Indicating/Recording Systems, in RUAG Aerospace Services GmbH Dornier 228 Airplane Maintenance Manual, TM-AMM-228-00014-080184, Revision 3, October 30, 2012.

(3) To comply with the actions of this AD, you may insert a copy of this AD or a copy of the required actions of this AD into the instructions for continued airworthiness section of the FAA-approved maintenance program (e.g., maintenance manual). This action may be done by an owner/operator (pilot) holding at least a private pilot certificate and must be entered into the airplane records showing compliance with this AD in accordance with 14 CFR §§ 43.9 (a)(1)(4) and 14 CFR 91.417(a)(2)(v). The record must be maintained as required by 14 CFR §§ 91.173 or 135.439.

**(g) Other FAA AD Provisions**

The following provisions also apply to this AD:

(1) **Alternative Methods of Compliance (AMOCs):** The Manager, Standards Office, FAA, has the authority to approve AMOCs for this AD, if requested using the procedures found in 14 CFR 39.19. Send information to ATTN: Karl Schletzbaum, Aerospace Engineer, FAA, Small Airplane Directorate, 901 Locust, Room 301, Kansas City, Missouri 64106; telephone: (816) 329-4146; fax: (816) 329-4090; email: karl.schletzbaum@faa.gov. Before using any approved AMOC on any airplane to which the AMOC applies, notify your appropriate principal inspector (PI) in the FAA Flight Standards District Office (FSDO), or lacking a PI, your local FSDO.

(2) **Airworthy Product:** For any requirement in this AD to obtain corrective actions from a manufacturer or other source, use these actions if they are FAA-approved. Corrective actions are considered FAA-approved if they are approved by the State of Design Authority (or their delegated agent). You are required to assure the product is airworthy before it is returned to service.

**(h) Related Information**

Refer to MCAI European Aviation Safety Agency (EASA) AD No.: 2013-0244, dated October 4, 2013, for related information. You may examine the MCAI on the Internet at <http://www.regulations.gov/#!documentDetail;D=FAA-2013-1056-0002>.

**(i) Material Incorporated by Reference**

(1) The Director of the Federal Register approved the incorporation by reference (IBR) of the service information listed in this paragraph under 5 U.S.C. 552(a) and 1 CFR part 51.

(2) You must use this service information as applicable to do the actions required by this AD, unless the AD specifies otherwise.

(i) Chapter 05, Time Limits/Maintenance Checks—General, in RUAG Aerospace Services GmbH Dornier 228 Time Limits/Maintenance Checks Manual (TLMCM), TM-TLMCM-090305-ALL, Revision 5, March 20, 2011:

(A) Page 5, in section 05-22-10, Zonal Inspection Program, dated May 1, 2006;

(B) Page 5, in section 05-26-10, Low Utilization Zonal Inspection Program, dated May 1, 2006.

(ii) Chapter 31, Indicating/Recording Systems, in RUAG Aerospace Services GmbH Dornier 228 Airplane Maintenance Manual, TM-AMM-228-00014-080184, Revision 3, October 30, 2012:

(A) Pages 1 through 10, Overhead Panel 5VE—Description, in subject 31-10-07, dated November 25, 2009;

(B) Pages 201 through 208, Overhead Panel 5VE—Maintenance Practices, in subject 31-10-07, dated November 25, 2009;

(C) Pages 1 and 2, Overhead Panel 6VE—Description, in subject 31-10-08, dated November 25, 2009;

(D) Pages 201 through 204, Overhead Panel 6VE—Maintenance Practices, in subject 31-10-08, dated November 25, 2009.

(3) For service information identified in this AD, contact RUAG Aerospace Services GmbH, Dornier 228 Customer Support, P.O. Box 1253, 82231 Wessling, Germany; telephone: +49 (0) 8153-30 2220; fax: +49 (0) 8153-30 4258; email:

[custsupport.dornier228@ruag.com](mailto:custsupport.dornier228@ruag.com); Internet:

[http://www.ruag.com/en/Aviation/Aviation\\_Home](http://www.ruag.com/en/Aviation/Aviation_Home).

(4) You may view this referenced service information at the FAA, Small Airplane Directorate, 901 Locust, Kansas City, Missouri 64106. For information on the availability of this material at the FAA, call (816) 329-4148.

(5) You may view this service information that is incorporated by reference at the National Archives and Records Administration (NARA). For information on the availability of this material at NARA, call 202-741-6030, or go to:

<http://www.archives.gov/federal-register/cfr/ibr-locations.html>.

Issued in Kansas City, Missouri, on June 13, 2014.

Earl Lawrence,  
Manager, Small Airplane Directorate,  
Aircraft Certification Service.

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